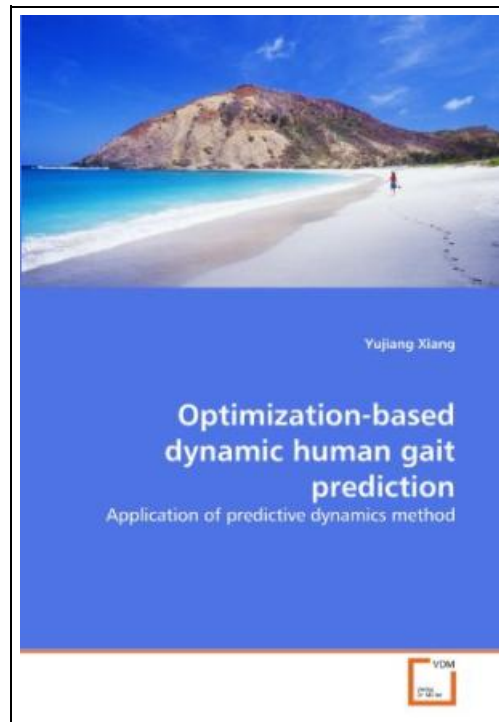


Optimization-based dynamic human gait prediction



Filesize: 2.12 MB

Reviews

*It is really an remarkable book which i have ever go through. It can be writter in simple terms and not difficult to understand. I am just effortlessly can get a enjoyment of reading a composed pdf.
(Dr. Lily Wunsch II)*

OPTIMIZATION-BASED DYNAMIC HUMAN GAIT PREDICTION

[DOWNLOAD](#)

Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | Application of predictive dynamics method | A new methodology, called predictive dynamics, is introduced in this work to simulate human walking using a spatial digital human model. The digital human model has 55 degrees of freedom. The resultant action of all the muscles at a joint is lumped and represented by the torque at each degree of freedom. In addition, the cubic B-spline interpolation is used for time discretization and the well-established robotic formulation of the Denavit- Hartenberg (DH) method is used for kinematics analysis of the mechanical system. The recursive Lagrangian formulation is used to develop the equations of motion. The ground reaction forces (GRF) are obtained from a novel two-step active- passive algorithm. The problem is formulated as a nonlinear optimization problem. A unique feature of the formulation is that the equations of motion are not integrated explicitly, but evaluated by inverse dynamics in the optimization process. Besides normal walking, several other cases are also considered, such as walking with a shoulder backpack of varying loads, walking at different speed, walking with asymmetric step lengths, and walking with reduced torque limits. | Format: Paperback | Language/Sprache: english | 156 pp.

[Read Optimization-based dynamic human gait prediction Online](#)[Download PDF Optimization-based dynamic human gait prediction](#)

Other PDFs



Would It Kill You to Stop Doing That?

Book Condition: New. Publisher/Verlag: Little, Brown Book Group | A Modern Guide to Manners | A laugh-out-loud guide to modern manners by acclaimed humorist, author, and Vanity Fair columnist Henry Alford. | A few years...

[Download Book](#)

»



Violet Rose and the Surprise Party

Book Condition: New. Publisher/Verlag: Nosy Crow | With activities, 3D press-out models and over 175 stickers! Plus free games and printables online! | When busy rabbit, Violet Rose, discovers that her friend Lily has a...

[Download Book](#)

»



Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 6: Gran's New Blue Shoes (Hardback)

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 172 x 142 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK's best-selling home reading series. It...

[Download Book](#)

»



Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 3: The Backpack (Hardback)

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 174 x 142 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK's best-selling home reading series. It...

[Download Book](#)

»



Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 3: The Sing Song (Hardback)

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 176 x 150 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK's best-selling home reading series. It...

[Download Book](#)

»